

Listing of Claims:

1– 12. (Previously cancelled)

13. (Previously Presented) A method for preparing a porous composite of polymer sponge and ceramic body with excellent thermal insulation property, the method comprising:

an impregnation step in which the polymer sponge having a three-dimensional porous network structure with open cells is immersed in an inorganic adhesive solution, such that the polymer sponge is impregnated with the inorganic adhesive solution;

a dewatering step in which the inorganic adhesive solution is partially removed from the polymer sponge impregnated with the inorganic adhesive solution so as to create pores in the open cells of the three-dimensional porous network structure at an amount selected according to a desired density of the ceramic body, wherein the pores are coated with the inorganic adhesive solution; and

a drying step in which the coated inorganic adhesive solution is dried and cured to form the ceramic body coated in the pores,

wherein the porous composite includes the polymer sponge and the ceramic body coated in the pores of the polymer sponge.

14. (Previously presented) The method of Claim 13, wherein the impregnating, dewatering and drying steps are performed repeatedly several times.

15. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution is formed of at least one selected from the group consisting of silicates and modified silicates including sodium silicate, potassium silicate and lithium silicate, sol compounds including silica sol and alumina sol, and phosphate adhesives including aluminum phosphate and modified aluminum phosphate.

16. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises a surfactant.

17. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of silane coupling agents and organic adhesives.

18. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of sodium silicofluoride and magnesium sulfate.

19. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises a water repellant.

20. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of aluminum hydroxide, magnesium hydroxide, antimony compounds, boric acid, borax, phosphoric acid, phosphate, phosphorus-based and halogenbased flame retardants, and thermosetting resins.

21. (Previously Presented) The method of Claim 13, further comprising the step of introducing a gaseous or solid curing agent into the pores of the polymer sponge, before the drying step but after the dewatering step.

22. (Previously presented) The method of Claim 21, wherein the impregnating, dewatering and drying steps are performed repeatedly several times.

23. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution is formed of at least one selected from the group consisting of silicates and modified silicates including sodium silicate, potassium silicate and lithium silicate, sol compounds including silica sol and alumina sol, and phosphate adhesives including aluminum phosphate and modified aluminum phosphate.

24. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution comprises a surfactant.

25. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of silane coupling agents and organic adhesives.

26. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of sodium silicofluoride and magnesium sulfate.

27. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution comprises a water repellent.

28. (Previously Presented) The method of Claim 21, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of aluminum hydroxide, magnesium hydroxide, antimony compounds, boric acid, borax, phosphoric acid, phosphate, phosphorus-based and halogenbased flame retardants, and thermosetting resins.

29. (Cancelled)

30. (Previously Presented) The method of Claim 13, wherein the inorganic adhesive solution comprises a solid or liquid curing agent.

31. (Previously presented) The method of Claim 30, wherein the impregnating, dewatering and drying steps are performed repeatedly several times.

32. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution is formed of at least one selected from the group consisting of silicates and modified silicates including sodium silicate, potassium silicate and lithium silicate, sol compounds including silica sol and alumina sol, and phosphate adhesives including aluminum phosphate and modified aluminum phosphate.

33. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution comprises a surfactant.

34. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of silane coupling agents and organic adhesives.

35. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of sodium silicofluoride and magnesium sulfate.

36. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution comprises a water repellent.

37. (Previously Presented) The method of Claim 30, wherein the inorganic adhesive solution comprises at least one selected from the group consisting of aluminum hydroxide, magnesium hydroxide, antimony compounds, boric acid, borax, phosphoric acid, phosphate, phosphorus-based and halogenbased flame retardants, and thermosetting resins.

38. (Cancelled)

39. (Previously Presented) A porous composite of polymer sponge and ceramic body, comprising a porous polymer sponge having a plurality of pores and a ceramic body coated in the pores of the porous polymer sponge, wherein the ceramic body is formed of at least one selected from the group consisting of silicates including sodium silicate, potassium silicate and lithium silicate, silica and alumina prepared by a method according to Claim 13.

40. (Previously Presented) The porous composite of polymer sponge and ceramic body of Claim 39, wherein the method additionally comprises the step of introducing a gaseous or solid curing agent into the pores of the polymer sponge, before the drying step but after the dewatering step.

41. (Cancelled)